REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Examiner interview

Applicant appreciates the courtesy extended to Applicant's representative during the course of the personal interview conducted on July 9, 2009.

During the interview, the Saliba reference, and differences between the present application and the Saliba reference, were discussed. Also discussed were proposed amendments to further describe the type of transaction or data exchange, including authentication data, which is split between first and second communication channels according to the present application.

In the claims

Claim 1 is amended to more clearly point out that the method includes conducting an authenticated data exchange transaction between the data carrier and the external device, wherein authentication data and transaction data associated with the authentication data are exchanged between the data carrier and the external device in part via the first bidirectional transmission channel and in part via the second bidirectional channel.

Claims 8, 12, and 14 are amended similarly to claim 1.

Support for these amendments is found at least at pages 1, 2, and 4 of the original specification, as well as generally throughout the original specification.

Rejection of claims 8-10 under 35 U.S.C. § 112, second paragraph

Claims 8-10 presently stand rejected as being indefinite. In particular, the Examiner states that "the ISO standard" recited at line 13 of claim 8 lacks antecedent basis.

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Claim 8 is amended to indicate that the first bidirectional transmission channel is established according to an ISO standard for a chip card, thus providing antecedent basis for the subsequent reference to the ISO standard.

In view of the amendment, withdrawal of the rejection is requested.

Rejection of claims 1-14 under 35 U.S.C. § 103(a)

Claims 1-14 presently stand rejected as being unpatentable over Saliba (U.S. 5,894,425) in view of Bradley et al. (U.S. 5,309,564). This rejection is respectfully traversed for at least the following reasons.

Claim 1 is amended, as noted above, to point out that the method includes conducting an authenticated data exchange transaction between the data carrier and the external device, wherein authentication data and transaction data associated with the authentication data are exchanged between the data carrier and the external device in part via the first bidirectional transmission channel and in part via the second bidirectional channel. Claims 8, 12, and 14 are similarly amended.

It is respectfully submitted that neither Saliba nor Bradley disclose or suggest conducting an authenticated data exchange transaction between a data carrier and an external device, wherein authentication data and transaction data associated with the authentication data are exchanged between the data carrier and the external device in part via the first bidirectional transmission channel and in part via the second bidirectional channel. Accordingly, these references fail to form a prima facie case of obviousness of any of claims 1, 8, 12, and 14 or their respective dependent claims.

Turning to Saliba, Saliba does not disclose or suggest conducting an authenticated data exchange transaction between a data carrier and an external device, wherein authentication data and transaction data associated with the authentication data are exchanged between the data carrier and the external device in part via the first bidirectional transmission channel and in part via the second bidirectional channel.

Saliba discloses a computer 12 which includes several peripheral (data storage) devices, and a wireless interface for communication between a PDA and any one of the peripheral devices. As Saliba points out, "In the FIG. 1 example a streaming tape drive

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16, an optical compact disk drive 18, a floppy disk 20 and a hard disk 22 are shown installed in the bays and are connected to a motherboard within the housing 12 by conventional cabling providing bus connections." (*Saliba*; col. 4, lines 45-49). However, Saliba is concerned with communication between the PDA and a peripheral device, and not communication between the PDA and the computer itself. That is, "a general object of [Saliba's] invention is to provide a wireless secondary bidirectional data path *to an embedded controller of a mass storage device* [...]." (*Saliba*; col. 2, lines 50-53; emphasis added).

Saliba discloses conducting an authenticated data exchange transaction between a PDA 50 and a peripheral device (drive 16) of a computer 12. (see *Saliba*; col. 6, lines 17-35). However, in no instance does Saliba disclose or suggest that, in an authenticated data exchange transaction, *authentication data and transaction data associated with the authentication data* are exchanged in part via a first bidirectional transmission channel and in part via a second bidirectional channel.

Applicant recognizes that, since the computer includes several peripheral devices, the computer itself may be argued to include several bidirectional communication channels (that is, one corresponding to each of the peripheral devices). However, Saliba does not disclose or suggest any interaction between the peripheral devices, or any interaction between the peripheral devices and the computer 12 with regard to any communication between the PDA and a peripheral device. That is, there is no teaching or suggestion that any data exchange transaction may be initiated between the PDA 50 and one of the peripheral devices, and then conducted or concluded between the PDA 50 and another of the peripheral devices.

Instead, any authenticated data exchange transaction (that is, an exchange of authentication data *and transaction data associated with the authentication data*, or transaction data whose further exchange is authorized or enabled by a successful authentication based on the authentication data) is confined to interaction between the PDA 50 and a single peripheral device, and more particularly to a single bidirectional communication channel.

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While Saliba's arrangement indeed does allow an authenticated data exchange transaction between the PDA 50 and any one of the peripheral devices, each such authenticated data exchange transaction is confined to a single bidirectional communication channel (that of the peripheral device communicating with the PDA 50 for the given transaction). In no instance does Saliba provide any teaching or suggestion that a single authenticated data exchange transaction, wherein authentication data *and transaction data associated with the authentication data* are exchanged between the data carrier and the external device in part via the first bidirectional transmission channel and in part via the second bidirectional channel.

Saliba discloses communication between the PDA 50 and a peripheral device via only a single bidirectional communication channel, an IR unit 24 of the peripheral device in communication with the PDA 50. Applicant notes that, while Saliba in one passage states that each of the peripheral devices "has at least one bidirectional IR unit 24 extending through a front bezel and having at least a lens visible to an operator facing the front panel 14" (*Saliba*; col. 4, lines 51-53), no other passage of Saliba describes more than a single IR unit 24. That is, every other reference to or discussion of the bidirectional IR unit 24 refers to only a single bidirectional IR unit 24. Moreover, every reference to or discussion of communication with the PDA refers to only a single communication channel established between a single bidirectional IR unit 24 and the PDA.

For example, referring to Saliba's Fig. 2, which illustrates a "diagrammatic plan view of a front panel bezel showing a dual-purpose light emitting diode structure and an electrical block diagram of related circuitry in accordance with principles of [Saliba's] invention," only a single bidirectional IR unit 24 is shown, comprising a send/receive LED assembly 30 connected to a secondary interface circuit 32, which communicates directly with a microprocessor 28 embedded within the drive.

While Saliba's Fig. 2 does illustrate two LEDs 26, 30 associated with the lens 36 and with the drive microcontroller 28, it must be recognized that the LED 26 is simply a visible-light panel indicator, and not a bidirectional communication element. More specifically, Saliba states that "a prism structure 36 splits an incoming/outgoing optical path extending through the front panel 38 into two light components: *one for the visible*

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LED 26 and *one for the IR assembly 30.* By providing a dual purpose LED 24, a computer user need not be made aware of the availability of the secondary port at the front panel. *Light emissions from the visible LED 26 will be understood as conventional drive status indications.*" (*Saliba*; col. 5, lines 15-22; emphasis added).

Moreover, while Saliba refers to the IR unit 24 as including "an infra-red send/receive LED assembly 30 connected to *a secondary interface circuit 32*" (Saliba; col. 4, lines 57-59; emphasis added), the reference to a secondary interface circuit does not indicate that more than a single IR unit 24 exists. On the contrary, the designation as a secondary interface simply distinguishes the interface circuit 32 associated with the IR unit 24 from a primary interface bus 44 which is the peripheral devices standard interface to the computer 12 itself.

That is, while Saliba's "secondary interface circuit 32 communicates directly with a microprocessor 28 embedded within the drive" (*Saliba*; col. 4, lines 59-61), "the drive microprocessor 28 is also connected to a data controller block 40 which supervises passage of data blocks between a data read/write path 42 and a drive primary interface bus 44, such as a SCSI bus" (Saliba; col. 4, lines 64-67). Clearly, the primary interface bus 44 is not another IR unit 24 (or any other communication means) for communicating with the PDA 50. Instead, Saliba discloses only a single bidirectional communication channel between a peripheral device and the PDA 50.

Turning to Saliba's discussion of communications between an exemplary peripheral device (drive 16) and the PDA 50, Saliba disclose a password exchange to establish a connection between the PDA 50 and the drive 16. (see *Saliba*; col. 6, lines 30-35). A field unit password may be checked to determine that the particular field unit (PDA) 50 has requisite security for access to the drive 16. (see *Saliba*; col. 6, lines 61-64). Once the connection is established, the drive 16 detects and responds to available commands, including diagnostics, firmware code update, and end. Once an end command is received by the drive 16's midrocontroller 28, the drive microcontroller 28 is reset and returned to normal drive operations. (see *Saliba*; col. 6, line 65 - col. 7, line 5).

Referring to Saliba's Fig. 5 which the operation of the communication in the drive 16, and the corresponding portion of Saliba's specification at col. 6, line 16 - col. 7, line 7,

no teaching or suggestion is found at all that, during the course of communication between the PDA and the drive 16, any portion of the transaction conducted between these devices is divided between two communication channels. Construing the steps of communication conducted as set forth in Saliba's Figs. 4 and 5 (from initiating communications at step 60 to termination of communications at step 78) as an authenticated data exchange transaction, there is no teaching or suggestion that any of authentication data (such as the password), or transaction data related to the authentication (diagnostics, firmware code update, etc) is exchanged between the PDA 50 and the drive 16 in part via a first bidirectional transmission channel and in part via a second bidirectional channel.

Turning now to Bradley, it is respectfully submitted that Bradley also fails to disclose or suggest conducting an authenticated data exchange transaction between a data carrier and an external device, wherein authentication data and transaction data associated with the authentication data are exchanged between the data carrier and the external device in part via the first bidirectional transmission channel and in part via the second bidirectional channel.

The Examiner asserts that Bradley discloses "logical separation of bidirectional transmission channels was well known in the art at the time of applicant's invention," citing col. 7, lines 56-65 and col. 8, lines 13-23 of Bradley's specification. Referring to these passages, it is clear that there is no teaching or suggestion of conducting a single authenticated data exchange between a data carrier and an external device in part via a first bidirectional communication channel and in part via a second bidirectional communication channel.

While Bradley indicates that "signals may be communicated on two separate transmission channels or on a single common transmission channel" (*Bradley*; col. 7, lines 56-58), Bradley is referring to keyboard and mouse signals for a computer workstation. Bradley further states that "FIG. 2C illustrates both methods being used, it shows DOS keyboard and mouse signals being received on two separate channels 28 but said MAC keyboard and mouse signals being received on a single non-synchronous communications channel 29." (*Bradley*; col. 7, lines 61-65). It can be recognized that keyboard and mouse signals are not related as authentication data and transaction data related to the

authentication data. Accordingly, there is no teaching or suggestion of conducting an authenticated data exchange transaction partly via a first channel and partly via a second channel, as claimed.

For at least these reasons, it is respectfully submitted that Saliba and Bradley fail to form a prima facie case of obviousness of any of claims 1, 8, 12, and 14. Therefore, it is respectfully submitted that all of claims 1-14 are allowable over the cited references, and withdrawal of the rejection is requested accordingly.

Conclusion

In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-14 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

Respectfully submitted,

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Date: July 31, 2009

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